

REMARKS

Applicants' claims have been amended to better clarify Applicants' claimed invention. Independent Claims 1 is amended herein to recite a first rail system comprising a set of rails. Support can be found in the specification at Page 4, Lines 20-21. The Specification expressly reads: "In a preferred embodiment of Applicants' invention, first rail system 16 includes two parallel upper and lower rails."

Claim 1 is further amended herein to recite a garage comprising a second rail system comprising two sets of parallel rails disposed along a third axis, where each set of rails is disposed along a third axis which is perpendicular to both the first axis and the second axis. Support can be found in the Specification on Page 7 at Lines 18 to Page 8 at Line 5, and in FIG. 7 which shows a first set of rails 80 comprising upper rail 80a and lower rail 80b, and a second set of rails 85 comprising upper rail 85a and lower rail 85b, where set of rails 80 are parallel to set of rails 85, i.e. rails 80 and 85 are each disposed along a Y axis. Claim 1 is further amended herein to recite a moveable set of rails can be moved bidirectionally along the second rail system to be substantially colinear with said first rail system such one or more accessors can be moved between said first rail system and said moveable rail system. Support can be found in the Specification at Page 6, Lines 9 – 16.

Similarly, Independent claims 10 and 19, as amended herein, recite a first media library comprising a first rail system comprising a set of rails, a garage comprising a third rail system comprising two parallel sets of rails disposed, where each of the two sets of rails is disposed along a third axis, and a moveable set of rails that can be moved along the third rail system to be substantially colinear with said first rail system such one or more accessors can be moved

between said first rail system and said moveable rail system.

Independent claims 10 and 19 are further amended herein to recite a media library comprising a second rail system comprising a set of rails. Support can be found in the Specification at Page 11, Lines 13 – 17. Independent claims 10 and 19 are further amended herein to recite that the moveable set of rails that can be moved along the third rail system to be substantially colinear with the second rail system such one or more accessors can be moved between the second rail system and the moveable rail system. Support can be found in the Specification at Page 12, Lines 1 – 10.

New FIG. 10 shows the elements of FIG. 1 and FIG. 7 in a perspective view. FIG. 10 includes elements 12, 16, 14, 18, 24, 70, and 72, which are recited in FIG. 1; and elements 24a, 24b, 80a, 80b, 85a, 85b, 100, and 120, which are recited in FIG. 7.

No new matter has been entered. Reexamination and reconsideration of the application, as amended, is respectfully requested.

Claims 1, 10, and 19, stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to claim how the moveable rail system interacts with the rest of the system elements. Claims 1, 10, and 19, are amended herein to recite that the moveable rail system can be positioned to be colinear with the rail system disposed in an adjacent media storage library such an accessor can be moved between the moveable rail system and the rail system disposed in the media library.

Claims 1 - 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Motoyama (U.S. Pat. No. 6,022,180) in view of Kanetsuku et al. (U.S. Pat. No. 6,449,223), and further in view of Ostwald et al. (U.S. Pat. No. 6,262,863).

Motoyama et al. teach an accessor “which is capable of surely transferring a plurality of types of cartridges (media), thus meeting a variety of needs from the users.” Col. 2 / Lines 6-13. Motoyama et al.’s accessor includes a carriage section, a vertical pillar, and a movable servo section disposed on that vertical pillar. *See*, Motoyama et al. at FIG. 2.

Motoyama et al. nowhere, however, teach or suggest a media storage library which includes a first rail system comprising a set of rails disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first rail system, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with garage comprising a second rail system comprising two parallel sets of rails, where each of those sets of rails are disposed along a third axis where that third axis is perpendicular to both the first axis and the second axis, in combination with a movable set of rails that can be moved bidirectionally along the second rail system such that the moveable set of rails can be made colinear with the first rail system such one or more accessors can be moved between said first rail system and said moveable rail system.

Kanetsuku et al. teach a library apparatus comprising “a storage rack, a deck, and an accessor and is constructed by coupling a plurality of lockers in which a traveling passage for the accessor is formed to penetrate them as well as the first-mentioned library apparatus, wherein sheet metal columns having a standardized structure are set vertically at corner portions of the locks, and a plane reference plate having a vertical surface parallel to the coupling directions of the plurality of lockers . . .” Col. 2 / Line 65 - Col. 3 / Line 4.

Kanetsuku et al., however, nowhere teach or suggest a media storage library which

includes a first rail system comprising a set of rails disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first rail system, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with garage comprising a second rail system comprising two parallel sets of rails, where each of those sets of rails are disposed along a third axis where that third axis is perpendicular to both the first axis and the second axis, in combination with a movable set of rails that can be moved bidirectionally along the second rail system such that the moveable set of rails can be made colinear with the first rail system such one or more accessors can be moved between said first rail system and said moveable rail system.

Ostwald et al. teach a “library comprising a two dimensional array that contains media cartridge cells and media cartridge players. A system of rails is used to guide robotic pods through all of the locations in the array.” Col. 2 / Lines 60 - 64. Ostwald nowhere teach or suggest a media storage library which includes a first rail system comprising a set of rails disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first rail system, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with garage comprising a second rail system comprising two parallel sets of rails, where each of those sets of rails are disposed along a third axis where that third axis is perpendicular to both the first axis and the second axis, in combination with a movable set of rails that can be moved bidirectionally along the second rail system such that the moveable set of rails can be made colinear with the first rail system such one or more accessors can be

moved between said first rail system and said moveable rail system..

Quite to the contrary, Ostwald et al. teaches away from Motoyama et al. and from Kanetsuku et al., and from Applicants' claims 1 through 22, as amended herein. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference . . . would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed.Cir. 1994). Ostwald et al. teaches away from using accessors which include a lifting servo section as recited in Motoyama et al. and in Kanetsuku et al., and in Applicants' claims.

Ostwald et al., at Col. 2 between lines 6 and 36, teach alleged problems inherent in using a movable "robotic arm" such as the vertical pillar / lifting servo section components of Applicants' assessor. For example, Ostwald et al. complain that "[t]he typical robotic arm and its supporting structure requires several servo motors to move the robotic arm between positions." Col. 2 / Lines 22 - 24. Ostwald et al. further complain that "each move of the robotic arm requires a time interval after the mechanism has stopped to bring the servo position into a steady state." Col. 2 / Line 24 - 26. Further, Ostwald et al. teach "[t]he moving mass of the robotic arm is much greater than the media cartridge being moved . . . The moving mass of the robotic arm also relates directly to power consumption, which is an important factor in large installations." Col. 2 / Lines 29-31 and 34 - 36.

In order to eliminate a servo mechanism to move the accessor's gripper mechanism upwardly and downwardly, Ostwald et al. teach a library wherein "[a] system of rails is used to guide robotic pods through all of the locations in the array . . ." Col. 2 / Lines 63 - 64. Ostwald et al.'s FIG. 1 shows this "system of rails" wherein the horizontal rails 122 - 126 guide Ostwald

et al.'s pods 102 horizontally. The movable vertical rail system 132 moves the pods upwardly and downwardly. Thus, Ostwald et al. teach a storage library wherein the entire accessor, rather than only one or more gripper mechanisms, is moved to each storage location and data drive.

One of ordinary skill in the art following the teachings of Oswald et al. would be motivated to construct a storage library comprising a rail system in combination with one or more accessors, such that each accessor can be positioned immediately in front of each storage slot and storage drive. Thus, Ostwald et al. teach away from Motoyama et al. and Kanetsuku et al. This being the case, Applicants respectfully submit that the Examiner improperly combines the teachings of Ostwald et al. with Motoyama et al. and/or Kanetsuku et al.

Moreover, a person of ordinary skill in the art, however, would not be motivated to construct a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of movable sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP 2143.03; *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicants' claim 1, as amended herein, recites a media storage library which includes a first rail system comprising a set of rails disposed along a first axis, a

plurality of accessors which can moved bidirectionally along that first rail system, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a garage comprising a second rail system comprising two sets of parallel rails, where each set of rails is disposed along a third axis, where that third axis is perpendicular to both the first axis and the second axis is movable sets of rails, in combination with a movable set of rails that can be moved bidirectionally on the second rail system to be colinear with the first rail system such one or more accessors can be moved between the first rail system and the moveable rail system.

Neither Motoyama et al., nor Kanetsuku et al., nor Ostwald et al., singly or in combination, suggest or teach a media storage library which includes a first rail system comprising a set of rails disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first rail system, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a garage comprising a second rail system comprising two sets of parallel rails, where each set of rails is disposed along a third axis, where that third axis is perpendicular to both the first axis and the second axis is movable sets of rails, in combination with a movable set of rails that can be moved bidirectionally on the second rail system to be colinear with the first rail system such one or more accessors can be moved between the first rail system and the moveable rail system.

This being the case, Applicants respectfully submit that claim 1, as amended herein, successfully traverses the rejection of claim 1 under 35 USC § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., in further view of Ostwald et al.

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Claims 2 - 9 depend from claim 1. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 2 - 9, as amended herein, includes all the elements of claim 1, as amended herein. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Applicants' respectfully submit that claim 1, as amended herein, is patentable over Motoyama et al. in view of Kanetsuku et al., in further view of Ostwald et al. This being the case, Applicants respectfully submit that the amendments of claims 2 - 9 herein successfully traverse the rejections of those claims under 35 U.S.C. § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Applicants' claim 10, as amended herein, recites a first media storage library comprising a first rail system comprising a set of rails disposed along a first axis, a second media library comprising a second rail system comprising a second set of rails disposed along the first axis, a plurality of accessors where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a garage comprising a third rail system comprising two parallel sets of rails, where each set of rails is disposed along a third axis where that third axis is perpendicular to both the first axis and the second axis, in combination with a movable set of rails, where that moveable set of rails can be moved bidirectionally along the third rail system to be colinear with the first rail system such one or more accessors can be moved between said

first rail system and said moveable rail system, and where that moveable set of rails can be moved bidirectionally along the third rail system to be colinear with the second rail system such one or more accessors can be moved between the second rail system and the moveable rail system.

Neither Motoyama et al., nor Kanetsuku et al., nor Ostwald et al., singly or in combination, suggest or teach a first media storage library comprising a first rail system comprising a set of rails disposed along a first axis, a second media library comprising a second rail system comprising a second set of rails disposed along the first axis, a plurality of accessors where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a garage comprising a third rail system comprising two parallel sets of rails, where each set of rails is disposed along a third axis where that third axis is perpendicular to both the first axis and the second axis, in combination with a movable set of rails, where that moveable set of rails can be moved bidirectionally along the third rail system to be colinear with the first rail system such one or more accessors can be moved between said first rail system and said moveable rail system, and where that moveable set of rails can be moved bidirectionally along the third rail system to be colinear with the second rail system such one or more accessors can be moved between the second rail system and the moveable rail system.

This being the case, Applicants respectfully submit that claim 10, as amended herein, successfully traverses the rejection of claim 10 under 35 USC § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Claims 11 - 18 depend, directly or indirectly, from claim 10. Under 35 U.S.C. § 112,

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fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 11 - 18, as amended herein, include all the elements of claim 10, as amended herein. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Applicants' respectfully submit that claim 10, as amended herein, is patentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al. This being the case, Applicants respectfully submit that the amendments of claims 11 - 18 herein successfully traverse the rejections of those claims under 35 U.S.C. § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Applicants' claim 19, as amended herein, recites a method of moving one or more accessors between a first media storage library, comprising a first rail system comprising a set of rails disposed along a first axis, and a second media library, comprising a second rail system comprising a set of rails disposed along the first axis, through a garage comprising a third rail system disposed along a third axis perpendicular to the first axis and a moveable set of rails that can be moved bidirectionally along that third rail system. Claim 19, as amended herein, further recites that each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis. Claim 19, as amended herein, further recites positioning a moveable set of rails on the third rail system to be colinear with the first rail system and moving one or more accessors from the first rail system onto that moveable set of rails. Claim 19, as amended herein, further recites positioning the

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moveable set of rails to be colinear with the second rail system and moving one or more accessors from the moveable set of rails onto the second rail system.

Neither Motoyama et al., nor Kanetsuku et al., nor Ostwald et al, singly or in combination, suggest or teach a method to move an accessor within an automated data storage system comprising a first media storage library comprising a first rail system, a second media storage library comprising a second rail system, and a garage comprising a third rail system in combination with a moveable set of rails that can move bidirectionally along the third rail system. Moreover, Neither Motoyama et al., nor Kanetsuku et al., nor Ostwald et al, singly or in combination, suggest or teach positioning the moveable set of rails to be colinear with the first rail system, moving one or more accessors from the first rail system onto a moveable set of rails, positioning the moveable set of rails to be colinear with the second rail system, and moving one or more accessors from the moveable set of rails onto the second rail system.

This being the case, Applicants respectfully submit that claim 19, as amended herein, successfully traverses the rejection of claim 19 under 35 USC § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., in further view of Ostwald et al.

Claims 20 - 22 depend from claim 19. Under 35 U.S.C. § 112, fourth paragraph, “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” Therefore, claims 20 - 22, as amended herein, include all the elements of claim 19, as amended herein. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Applicants’ respectfully submit that claim 19, as

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amended herein, is patentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al. This being the case, Applicants respectfully submit that the amendments of claims 20 - 22 herein successfully traverse the rejections of those claims under 35 U.S.C. § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Having dealt with all of the outstanding objections and/or rejections of the claims, Applicants submit that the application as amended is in condition for allowance, and an allowance at an early date is respectfully solicited. In the event there are any fee deficiencies or additional fees are payable, please charge them, or credit an overpayment, to our Deposit Account No. 502262.

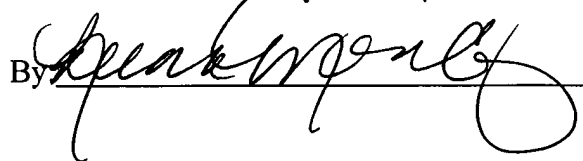
Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on December 9, 2004, at Tucson, AZ.

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Amendments to the Figures:

Exhibit 1 hereto comprises Proposed New FIG. 10. In the Office Action dated June 9, 2004, the Examiner requested that the Cartesian coordinates recited in each FIG. Be checked for accuracy. Applicants have review the FIGs., and the Cartesian coordinates recited therein are accurate.

FIG. 10 shows the elements of FIG. 1 and FIG. 7 in a perspective view. FIG. 10 includes elements 12, 16, 14, 18, 24, 70, and 72, which are recited in FIG. 1; and elements 24a, 24b, 80a, 80b, 85a, 85b, 100, and 120, which are recited in FIG. 7. No new matter has been added. Applicants respectfully submit that the perspective view of FIG. 10 assists interpretation of the Cartesian coordinates recited in the other FIGs.